

P. Paras Jr.

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NOV 27 2000

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KP
11-29-00

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/518,931

DATE: 11/07/2000
TIME: 11:36:26

TECH CENTER 1600/2900

Input Set : A:\454pl SL Jul2000 PA
Output Set: N:\CRF3\11072000\I518931.raw

3 <110> APPLICANT: Gentz, Reiner
5 <120> TITLE OF INVENTION: Tumor Necrosis Factor Receptors 6 Alpha and 6 Beta
7 <130> FILE REFERENCE: PF454P1
9 <140> CURRENT APPLICATION NUMBER: 09/518,931
10 <141> CURRENT FILING DATE: 2000-03-03
12 <150> PRIOR APPLICATION NUMBER: 09/006,352
13 <151> PRIOR FILING DATE: 1998-01-13
15 <150> PRIOR APPLICATION NUMBER: 60/121,774
16 <151> PRIOR FILING DATE: 1999-03-04
18 <150> PRIOR APPLICATION NUMBER: 60/124,092
19 <151> PRIOR FILING DATE: 1999-03-12
21 <150> PRIOR APPLICATION NUMBER: 60/131,279
22 <151> PRIOR FILING DATE: 1999-04-27
24 <150> PRIOR APPLICATION NUMBER: 60/131,964
25 <151> PRIOR FILING DATE: 1999-04-30
27 <150> PRIOR APPLICATION NUMBER: 60/146,371
28 <151> PRIOR FILING DATE: 1999-08-02
30 <150> PRIOR APPLICATION NUMBER: 60/168,235
31 <151> PRIOR FILING DATE: 1999-12-01
33 <160> NUMBER OF SEQ ID NOS: 27
35 <170> SOFTWARE: PatentIn Ver. 2.1
37 <210> SEQ ID NO: 1
38 <211> LENGTH: 1077
39 <212> TYPE: DNA
40 <213> ORGANISM: Homo sapiens
42 <220> FEATURE:
43 <221> NAME/KEY: CDS
44 <222> LOCATION: (25)..(924)
46 <400> SEQUENCE: 1
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49 1 5
51 tgg ctg ctg tgc ctg gtg ttg gcg ctg cct gcc ctg ctg ccg gtg ccg 99
52 Ser Leu Leu Cys Leu Val Leu Ala Leu Pro Ala Leu Leu Pro Val Pro
53 10 15 20 25
55 gct gta cgc gga gtg gca gaa aca ccc acc tac ccc tgg cgg gac gca 147
56 Ala Val Arg Gly Val Ala Glu Thr Pro Thr Tyr Pro Trp Arg Asp Ala
57 30 35 40
59 gag aca ggg gag cgg ctg gtg tgc gcc cag tgc ccc cca ggc acc ttt 195
60 Glu Thr Gly Glu Arg Leu Val Cys Ala Gln Cys Pro Pro Gly Thr Phe
61 45 50 55
63 gtg cag cgg ccg tgc cgc cga gac agc ccc acg acg tgt ggc ccg tgt 243
64 Val Gln Arg Pro Cys Arg Arg Asp Ser Pro Thr Thr Cys Gly Pro Cys
65 60 65 70
67 cca ccg cgc cac tac acg cag ttc tgg aac tac ctg gag cgc tgc cgc 291
68 Pro Pro Arg His Tyr Thr Gln Phe Trp Asn Tyr Leu Glu Arg Cys Arg
69 75 80 85

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See p. 5

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71 tac tgc aac gtc ctc tgc ggg gag cgt gag gag gca cgg gct tgc 339
72 Tyr Cys Asn Val Leu Cys Gly Glu Arg Glu Glu Glu Ala Arg Ala Cys
73 90 95 100 105
75 cac gcc acc cac aac cgt gcc tgc cgc tgc cgc acc ggc ttc ttc gcg 387
76 His Ala Thr His Asn Arg Ala Cys Arg Cys Arg Thr Gly Phe Phe Ala
77 110 115 120
79 cac gct ggt ttc tgc ttg gag cac gca tcg tgt cca cct ggt gcc ggc 435
80 His Ala Gly Phe Cys Leu Glu His Ala Ser Cys Pro Pro Gly Ala Gly
81 125 130 135
83 gtg att gcc ccg ggc acc ccc agc cag aac acg cag tgc cag ccg tgc 483
84 Val Ile Ala Pro Gly Thr Pro Ser Gln Asn Thr Gln Cys Gln Pro Cys
85 140 145 150
87 ccc cca gcc acc ttc tca gcc agc agc tcc agc tca gag cag tgc cag 531
88 Pro Pro Gly Thr Phe Ser Ala Ser Ser Ser Ser Ser Glu Gln Cys Gln
89 155 160 165
91 ccc cac cgc aac tgc acg gcc ctg ggc ctg gcc ctc aat gtg cca ggc 579
92 Pro His Arg Asn Cys Thr Ala Leu Gly Leu Ala Leu Asn Val Pro Gly
93 170 175 180 185
95 tct tcc tcc cat gac acc ctg tgc acc agc tgc act ggc ttc ccc ctc 627
96 Ser Ser Ser His Asp Thr Leu Cys Thr Ser Cys Thr Gly Phe Pro Leu
97 190 195 200
99 agc acc agg gta cca gga gct gag gag tgt gag cgt gcc gtc atc gac 675
100 Ser Thr Arg Val Pro Gly Ala Glu Glu Cys Glu Arg Ala Val Ile Asp
101 205 210 215
103 ttt gtg gct ttc cag gac atc tcc atc aag agg ctg cag cgg ctg ctg 723
104 Phe Val Ala Phe Gln Asp Ile Ser Ile Lys Arg Leu Gln Arg Leu Leu
105 220 225 230
107 cag gcc ctc gag gcc ccg gag ggc tgg ggt ccg aca cca agg gcg ggc 771
108 Gln Ala Leu Glu Ala Pro Glu Gly Trp Gly Pro Thr Pro Arg Ala Gly
109 235 240 245
111 cgc gcg gcc ttg cag ctg aag ctg cgt cgg cgg ctc acg gag ctc ctg 819
112 Arg Ala Ala Leu Gln Leu Lys Leu Arg Arg Arg Leu Thr Glu Leu Leu
113 250 255 260 265
115 ggg gcg cag gac ggg gcg ctg ctg gtg cgg ctg ctg cag gcg ctg cgc 867
116 Gly Ala Gln Asp Gly Ala Leu Leu Val Arg Leu Leu Gln Ala Leu Arg
117 270 275 280
119 gtg gcc agg atg ccc ggg ctg gag cgg agc gtc cgt gag cgc ttc ctc 915
120 Val Ala Arg Met Pro Gly Leu Glu Arg Ser Val Arg Glu Arg Phe Leu
121 285 290 295
123 cct gtg cac tgatcctggc cccctcttat ttattctaca tccttggcac 964
124 Pro Val His
125 300
127 cccacttgca ctgaaagagg ctttttttta aatagaagaa atgaggttcc ttaaagctta 1024
129 tttttataaa gctttttcat aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa 1077
132 <210> SEQ ID NO: 2
133 <211> LENGTH: 300
134 <212> TYPE: PRT
135 <213> ORGANISM: Homo sapiens
137 <400> SEQUENCE: 2

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RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/518,931
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Input Set : A:\454p1 SL Jul2000 PA
 Output Set: N:\CRF3\11072000\I518931.raw

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139 1 5 10 15
141 Ala Leu Pro Ala Leu Leu Pro Val Pro Ala Val Arg Gly Val Ala Glu
142 20 25 30
144 Thr Pro Thr Tyr Pro Trp Arg Asp Ala Glu Thr Gly Glu Arg Leu Val
145 35 40 45
147 Cys Ala Gln Cys Pro Pro Gly Thr Phe Val Gln Arg Pro Cys Arg Arg
148 50 55 60
150 Asp Ser Pro Thr Thr Cys Gly Pro Cys Pro Pro Arg His Tyr Thr Gln
151 65 70 75 80
153 Phe Trp Asn Tyr Leu Glu Arg Cys Arg Tyr Cys Asn Val Leu Cys Gly
154 85 90 95
156 Glu Arg Glu Glu Glu Ala Arg Ala Cys His Ala Thr His Asn Arg Ala
157 100 105 110
159 Cys Arg Cys Arg Thr Gly Phe Phe Ala His Ala Gly Phe Cys Leu Glu
160 115 120 125
162 His Ala Ser Cys Pro Pro Gly Ala Gly Val Ile Ala Pro Gly Thr Pro
163 130 135 140
165 Ser Gln Asn Thr Gln Cys Gln Pro Cys Pro Pro Gly Thr Phe Ser Ala
166 145 150 155 160
168 Ser Ser Ser Ser Ser Glu Gln Cys Gln Pro His Arg Asn Cys Thr Ala
169 165 170 175
171 Leu Gly Leu Ala Leu Asn Val Pro Gly Ser Ser Ser His Asp Thr Leu
172 180 185 190
174 Cys Thr Ser Cys Thr Gly Phe Pro Leu Ser Thr Arg Val Pro Gly Ala
175 195 200 205
177 Glu Glu Cys Glu Arg Ala Val Ile Asp Phe Val Ala Phe Gln Asp Ile
178 210 215 220
180 Ser Ile Lys Arg Leu Gln Arg Leu Leu Gln Ala Leu Glu Ala Pro Glu
181 225 230 235 240
183 Gly Trp Gly Pro Thr Pro Arg Ala Gly Arg Ala Ala Leu Gln Leu Lys
184 245 250 255
186 Leu Arg Arg Arg Leu Thr Glu Leu Leu Gly Ala Gln Asp Gly Ala Leu
187 260 265 270
189 Leu Val Arg Leu Leu Gln Ala Leu Arg Val Ala Arg Met Pro Gly Leu
190 275 280 285
192 Glu Arg Ser Val Arg Glu Arg Phe Leu Pro Val His
193 290 295 300
197 <210> SEQ ID NO: 3
198 <211> LENGTH: 1667
199 <212> TYPE: DNA
200 <213> ORGANISM: Homo sapiens
202 <220> FEATURE:
203 <221> NAME/KEY: CDS
204 <222> LOCATION: (73)..(582)
206 <400> SEQUENCE: 3
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209 ccagcaagga cc atg agg gcg ctg gag ggg cca ggc ctg tcg ctg ctg tgc 111
210 Met Arg Ala Leu Glu Gly Pro Gly Leu Ser Leu Leu Cys

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Input Set : A:\454pl SL Jul2000 PA
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211                               1           5           10
213 ctg gtg ttg gcg ctg cct gcc ctg ctg ccg gtg ccg gct gta cgc gga 159
214 Leu Val Leu Ala Leu Pro Ala Leu Leu Pro Val Pro Ala Val Arg Gly
215      15                20                25
217 gtg gca gaa aca ccc acc tac ccc tgg cgg gac gca gag aca ggg gag 207
218 Val Ala Glu Thr Pro Thr Tyr Pro Trp Arg Asp Ala Glu Thr Gly Glu
219 30                35                40                45
221 cgg ctg gtg tgc gcc cag tgc ccc cca ggc acc ttt gtg cag cgg ccg 255
222 Arg Leu Val Cys Ala Gln Cys Pro Pro Gly Thr Phe Val Gln Arg Pro
223      50                55                60
225 tgc cgc cga gac agc ccc acg acg tgt ggc ccg tgt cca ccg cgc cac 303
226 Cys Arg Arg Asp Ser Pro Thr Thr Cys Gly Pro Cys Pro Pro Arg His
227      65                70                75
229 tac acg cag ttc tgg aac tac ctg gag cgc tgc cgc tac tgc aac gtc 351
230 Tyr Thr Gln Phe Trp Asn Tyr Leu Glu Arg Cys Arg Tyr Cys Asn Val
231      80                85                90
233 ctc tgc ggg gag cgt gag gag gag gca cgg gct tgc cac gcc acc cac 399
234 Leu Cys Gly Glu Arg Glu Glu Glu Ala Arg Ala Cys His Ala Thr His
235      95                100                105
237 aac cgt gcc tgc cgc tgc cgc acc ggc ttc ttc ccg cac gct ggt ttc 447
238 Asn Arg Ala Cys Arg Cys Arg Thr Gly Phe Phe Ala His Ala Gly Phe
239 110                115                120                125
241 tgc ttg gag cac gca tgc tgt cca cct ggt gcc ggc gtg att gcc ccg 495
242 Cys Leu Glu His Ala Ser Cys Pro Pro Gly Ala Gly Val Ile Ala Pro
243      130                135                140
245 ggt gag agc tgg gcg agg gga ggg gcc ccc agg agt ggt ggc cgg agg 543
246 Gly Glu Ser Trp Ala Arg Gly Gly Ala Pro Arg Ser Gly Gly Arg Arg
247      145                150                155
249 tgt ggc agg ggt cag gtt gct ggt ccc agc ctt gca ccc tgagctagga 592
250 Cys Gly Arg Gly Gln Val Ala Gly Pro Ser Leu Ala Pro
251      160                165                170
253 caccagttcc cctgacctg ttcttccctc ctggctgcag gcacccccag ccagaacacg 652
255 cagtgcacgc cytgcccccc aggcaccttc tcagccagca gctccagctc agagcagtg 712
257 cagccccacc gcaactgcac ggccctgggc ctggccctca atgtgccagg ctcttccctc 772
259 catgacaccc tgtgcaccag ctgcactggc ttccccctca gcaccagggt accagggtgag 832
261 ccagaggcct gagggggcag cacactgcag gccaggccca cttgtgccct cactcctgcc 892
263 cctgcacgtg catctagcct gaggcctgcc agctggctct gggaaggggc cacagtggat 952
265 ttgaggggtc aggggtccct ccactagatc cccaccaagt ctgccccttc aggggtggct 1012
267 gagaatttgg atctgagcca gggcacagcc tcccctggag agctctggga aagtgggcag 1072
269 caatctccta actgcccag ggaaggtgg ctggctcttc tgacacgggg aaaccgaggc 1132
271 ctgatggtaa ctctcctaac tgcctgagag gaaggtggct gcctcctctg acatggggaa 1192
273 accgaggccc aatgttaacc actgttgaga agtcacaggg ggaagtgacc cccttaacat 1252
275 caagtacagt ccggtccatc tgcaggtccc aactcgcccc ttccgatggc ccaggagccc 1312
277 caagcccttg cctgggcccc cttgctcttt gcagccaagg tccgagtggc cgtccttgcc 1372
279 ccctaggcct ttgtccagc tctctgaccg aaggctcttg ccccttctcc agtccccatc 1432
281 gttgcactgc cctctccagc acggctcact gcacagggat ttctctctcc tgcaaacccc 1492
283 ccgagtgggg ccagaaaagc agggtaacct gcagccccc cagtggtgtg tgggtgaaat 1552
285 gatcggaacc ctcctccccc accccactgc aggagctgag gagtgtgagc gtgccgtcat 1612
287 cyactttgtg gctttccagg acatctccat caagaggagc ggctgctgca ggccc 1667

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290 <210> SEQ ID NO: 4
291 <211> LENGTH: 170
292 <212> TYPE: PRT
293 <213> ORGANISM: Homo sapiens
295 <400> SEQUENCE: 4
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299 Ala Leu Pro Ala Leu Leu Pro Val Pro Ala Val Arg Gly Val Ala Glu
300 20 25 30
302 Thr Pro Thr Tyr Pro Trp Arg Asp Ala Glu Thr Gly Glu Arg Leu Val
303 35 40 45
305 Cys Ala Gln Cys Pro Pro Gly Thr Phe Val Gln Arg Pro Cys Arg Arg
306 50 55 60
308 Asp Ser Pro Thr Thr Cys Gly Pro Cys Pro Pro Arg His Tyr Thr Gln
309 65 70 75 80
311 Phe Trp Asn Tyr Leu Glu Arg Cys Arg Tyr Cys Asn Val Leu Cys Gly
312 85 90 95
314 Glu Arg Glu Glu Glu Ala Arg Ala Cys His Ala Thr His Asn Arg Ala
315 100 105 110
317 Cys Arg Cys Arg Thr Gly Phe Phe Ala His Ala Gly Phe Cys Leu Glu
318 115 120 125
320 His Ala Ser Cys Pro Pro Gly Ala Gly Val Ile Ala Pro Gly Glu Ser
321 130 135 140
323 Trp Ala Arg Gly Gly Ala Pro Arg Ser Gly Gly Arg Arg Cys Gly Arg
324 145 150 155 160
326 Gly Gln Val Ala Gly Pro Ser Leu Ala Pro
327 165 170
331 <210> SEQ ID NO: 5
332 <211> LENGTH: 455
333 <212> TYPE: PRT
334 <213> ORGANISM: Homo sapiens
336 <400> SEQUENCE: 5
337 Met Gly Leu Ser Thr Val Pro Asp Leu Leu Leu Pro Leu Val Leu Leu
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340 Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Leu Val Pro
341 20 25 30
343 His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys
344 35 40 45
346 Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys
347 50 55 60
349 Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp
350 65 70 75 80
352 Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu
353 85 90 95
355 Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val
356 100 105 110
358 Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg
359 115 120 125
361 Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe

```

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY

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Input Set : A:\454pl SL Jul2000 PA

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L:1418 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:1420 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:1421 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:1422 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:1423 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:1424 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:1425 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:1426 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:1455 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18
L:1456 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18
L:1457 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18
L:1458 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18